SITE ASSESSMENT REPORT
FOR
THE DURABLE COATINGS SITE
PLYMOUTH, WAYNE COUNTY, MICHIGAN

Prepared for:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V
Emergency Response Branch No. 1
9311 Groh Road
Grosse Ile, MI 48138

Prepared by:

WESTON SOLUTIONS, INC.
Suite R
360 East Maple Road
Troy, MI 48083

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WESTON START Project Manager:	Alexandra Clark
Telephone No.:	(248) 658-5015
U.S. EPA On-Scene Coordinator:	Jeffrey Lippert

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July 8, 2011

Prepared by: _____ Date: July 8, 2011
Matthew Beer
WESTON START Member

Reviewed by: _____ Date: July 8, 2011
Alexandra Clark
WESTON START Project Manager

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LIST OF ABBREVIATIONS AND ACRONYMS

ºF	Degrees Fahrenheit
AST	Aboveground storage tank
CFR	*Code of Federal Regulations*
HCN	Hydrogen cyanide
mg/L	Milligram per liter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OSC	On-Scene Coordinator
Poly	Polyethylene
START	Superfund Technical Assessment and Response Team
SU	Standard unit
SVOC	Semivolatile organic compound
TCLP	Toxicity Characteristic Leaching Procedure
TDD	Technical direction document
U.S. EPA	United States Environmental Protection Agency
VOC	Volatile organic compound
WESTON	Weston Solutions, Inc.

1. INTRODUCTION

The United States Environmental Protection Agency (U.S. EPA) tasked the Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) to assist the U.S. EPA On-Scene Coordinator (OSC) in performing a site assessment at the Durable Coatings site in Plymouth, Wayne County, Michigan (Site). Under Technical Direction Document (TDD) No. S05-0001-1105-017, U.S. EPA requested WESTON START to collect samples from drums of unknown contents located at the Site. The purpose of the sampling was to determine the presence of hazardous materials in the Site building. WESTON START also collected written and photographic documentation of Site conditions, performed air monitoring, and evaluated the potential for imminent and substantial threats to the public health or welfare of the environment. Under the direction of OSC Jeffrey Lippert, WESTON START conducted the site assessment activities on June 17, 2011.

This site assessment report is organized into the following sections:

- **Introduction –** Provides a brief description of the objectives and scope of site assessment activities
- **Site Background –** Details the Site description and history
- **Site Assessment Activities –** Discusses the methods and procedures used during the site assessment
- **Analytical Results –** Discusses analytical results for samples collected during the site assessment
- **Threats to Human Health and the Environment –** Identifies conditions at the Site that warrant a removal action under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
- **Conclusions –** Provides a summary of the site assessment findings

Figures and tables are presented after the conclusions section. In addition, this site assessment report contains two appendices. Appendix A provides a photographic log of Site conditions during the site assessment, and Appendix B provides the laboratory analytical report and data validation report for samples collected during the site assessment.

2. SITE BACKGROUND

The Site is located at 16580 Northville Road in Plymouth, Wayne County, Michigan (**Figure 2-1**). The coordinates of the Site are 42°23'41.29" North latitude and 83°28'05.48" West longitude. The Site is in a mixed industrial and residential area and is bordered by Northville Road and Hines Park to the west, Mill Street to the north, railroad tracks to the east, and Middle Rouge River and a commercial property to the south (**Figure 2-2**). Residences are located directly across the railroad tracks 100 feet east of the Site and less than 750 feet south and west of the Site. Meads Mill Middle School is located approximately 750 feet northeast of the Site. The Middle Rouge River is immediately south of the Site, and several other surface water bodies are located within a 1-mile-radius of the Site, including Waterford Pond and Phoenix Lake.

The Site contains one two-story building occupying a total of approximately 57,864 square feet and several concrete parking areas. Durable Coatings Corporation used the Site for electrocoating services, including rust-preventive coating, corrosion-resistant coating, and metal finishing services. The Site is no longer operational. At the time this site assessment report was prepared, no other information was available regarding the Site history.

3. SITE ASSESSMENT ACTIVITIES

Site assessment activities included a site reconnaissance, container inventory, and drum sampling. During the site assessment, WESTON START conducted air monitoring using a RAE Systems ToxiRAE hydrogen cyanide (HCN) meter and a MultiRAE multi-gas air monitor to monitor air in the breathing zone for carbon monoxide, hydrogen sulfide, lower explosive limit, oxygen, and volatile organic compounds (VOC). All ambient air monitoring readings were at or below background levels. WESTON START also used a Ludlum Model 19 MicroR Meter to monitor for radioactive materials at the Site, and no such materials were identified.

The following sections discuss the Site reconnaissance, Site observations, and sampling activities conducted during the site assessment.

3.1 SITE RECONNAISSANCE

On June 17, 2011, the U.S. EPA OSC and WESTON START mobilized to the Site. After a brief safety meeting and equipment set-up, U.S. EPA and WESTON START personnel conducted a site reconnaissance to perform air monitoring and identify containers and sampling locations. During the site reconnaissance, written and photographic documentation of current Site conditions were collected and potential environmental threats and sampling locations were noted. **Appendix A** provides photographic documentation of Site conditions at the time of the site reconnaissance.

3.2 SITE OBSERVATIONS

During the site assessment, the Site was non-operational and vacant but chemicals and some equipment associated with Site operations were still present. The first and second floors of the building contained various open and closed aboveground storage tanks (AST), vats, totes, drums, compressed gas cylinders, and small containers with no secondary containment. Several of the on-site containers showed signs of deterioration where flooding was present from associated leaks in the building roof. Several rooms in the building were equipped with large floor drains near deteriorated containers. In addition, releases of materials were observed within several areas of the building. The Site had limited perimeter fencing and sits idle and vacant.

WESTON START and U.S. EPA inventoried the ASTs, vats, totes, drums, compressed gas cylinders, and small containers to determine the approximate quantity of containers and materials at the Site. **Table 3-1** summarizes the container inventory, and **Figure 3-1** shows the room locations where the containers were observed.

During the inventory, U.S. EPA and WESTON START identified approximately 231 small containers with a capacity of 5 or less gallons; 12 compressed gas cylinders; 3 vats; 19 steel, polyethylene (poly), and fiberglass ASTs; 109 steel, fiber, and poly 55-gallon drums; and 18 poly totes. Labels on some containers and drums indicated the potential presence of hydrochloric, acetic, sulfuric, nitric, and phosphoric acids; sodium hydroxide; potassium

hydroxide; n-methypyrrolidone; methylene chloride; dichloromethane; propane, oxygen, and acetylene; glycol ether; and cellulose solvent.

3.3 SAMPLING ACTIVITIES

In accordance with the site-specific field sampling plan and health and safety plan, U.S. EPA directed WESTON START to collect four liquid samples for laboratory analysis. **Figure 3-1** shows the approximate sampling locations. Liquid samples were collected in Level B personal protective equipment using a variety of drum samplers. All samples were placed into glass sample jars provided by the laboratory, labeled appropriately, and placed on ice. The sample identification numbers and descriptions are as follows:

- DC-WL01-061711 – Thick white liquid sample collected from a steel 55-gallon drum labeled "White Peel" in Room 5
- DC-WL02-0611711 – Clear liquid sample collected from a rusted steel 55-gallon drum labeled "N-Methypyrrolidone" in Room 5
- DC-WL03-061711 – Clear liquid sample collected from a blue poly 55-gallon drum labeled "Acetic Acid Glacial" in Room 7
- DC-WL04-061711 – Clear liquid sample collected from a blue poly 55-gallon drum labeled "Sodium Hydroxide 50% Diaphragm" in Room 3

Samples DC-WL01-061711, DC-WL02-061711, and DC-WL04-061711 were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals using U.S. EPA Method SW-846 Method 6020; TCLP mercury using U.S. EPA SW-846 Method 7470A; TCLP VOCs using U.S. EPA SW-846 Method 8260B); TCLP semivolatile organic compounds (SVOCs) using U.S. EPA SW-846 Method 8270C); flashpoint (ignitability) using U.S. EPA SW-846 Method 1010; and pH (corrosivity) using U.S. EPA SW-846 Method 9041A. Sample DC-WL03-061711 was analyzed for all the same parameters except TCLP metals and TCLP mercury.

On June 17, 2011, WESTON START hand-delivered all four samples to Brighton Analytical LLC in Brighton, Michigan, for laboratory analysis.

4. ANALYTICAL RESULTS

Table 4-1 presents the analytical results for detections for the four waste liquid samples collected during the site assessment. **Appendix B** presents the laboratory analytical results and the data validation report associated with the samples. Sample analytical results were compared to the hazardous waste identification criteria in Title 40 of the *Code of Federal Regulations* (CFR), Part 261. According to 40 CFR, Part 261.2, a solid waste is considered a hazardous waste if it exhibits any of the characteristics of ignitability, corrosivity, toxicity, or reactivity. Detected analytical results for the samples are summarized below.

TCLP Metals Results

- Barium was detected in samples DC-WL01-061711 and DC-WL04-061711 at 0.60 and 0.40 milligram per liter (mg/L), respectively. Neither result exceeds the toxicity criterion for barium of 100 mg/L according to 40 CFR 261.24.
- Chromium was detected in sample DC-WL02-061711 at 0.11 mg/L. This result does not exceed the toxicity criterion for chromium of 5.0 mg/L according to 40 CFR 261.24.
- Sample DC-WL02-061711 contained TCLP copper at 0.5. mg/L. Copper does not have a toxicity criterion according to 40 CFR 261.24.
- Samples DC-WL01-061711, DC-WL02-061711, and DC-WL04-061711 contained detectable concentrations of TCLP zinc. Zinc does not have a toxicity criterion according to 40 CFR 261.24.

TCLP VOC Results

- Methyl ethyl ketone was detected in sample DC-WL01-061711 at a concentration of 17,000 mg/L. This result exceeds the toxicity criterion for methyl ethyl ketone of 200 mg/L. Therefore, the waste associated with this sample is considered hazardous according to 40 CFR 261.24.

TCLP SVOC Results

- No TCLP SVOCs were detected in any of the samples.

Flashpoint Results

- The flashpoints of samples DC-WL01-061711 and DC-WL03-061711 were 50 and 115 degrees Fahrenheit (°F), respectively. These results are less than 140 °F. Therefore, the wastes associated with these two samples are considered hazardous for the characteristic of ignitibility according to 40 CFR 261.21.

Corrosivity Results

- The pH of the waste samples ranged from 4.0 to 14.0 standard units (SU). The pH of sample DC-WL04-061711 of 14 SUs is greater than 12.5 SUs. Therefore, the waste associated with this sample is considered hazardous for the characteristic of corrosivity according to 40 CFR 261.22.

5. THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Factors to be considered in determining the appropriateness of a potential removal action at a site are delineated in the NCP at 40 CFR, Part 300.415(b)(2). A summary of the factors applicable to the Site are presented below.

- **Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances or pollutants or contaminants**

  Residences are located directly across the railroad tracks 100 feet east of the Site and less than 750 feet south and west of the Site. Meads Mill Middle School is located approximately 750 feet northeast of the Site. The presence of the residences and school increase the likelihood of exposure to residents of a release of hazardous substances at the Site. During the site assessment, the building contained ASTs, vats, totes, drums, compressed gas cylinders, and small containers with no secondary containment. Three of the four containers sampled during the site assessment contained characteristically hazardous wastes. Overall, the potential for exposure to potentially hazardous substances stored at the Site is high, especially considering that the on-site building is no longer occupied and is only partially fenced.

- **Actual or potential contamination of drinking water supplies or sensitive ecosystems**

  The presence of ASTs, vats, totes, drums, compressed gas cylinders, and small containers with no secondary containment in the Site building could be released and affect nearby sensitive ecosystems. Releases could potentially flow unimpeded into floor drains in the building or nearby Middle Rouge River. Pollutants that enter bodies of water can be retained for long periods of time and negatively impact sensitive ecosystems.

- **Hazardous substances or pollutants or contaminants in drums, totes, containers, or other bulk storage containers that may pose a threat of release**

  During the site assessment, U.S. EPA and WESTON START observed numerous compromised and open drums, totes, and containers in the Site building. During the site assessment, the Site was non-operational and vacant but chemicals and equipment associated with Site operations were still present. The first and second floors of the Site building contained various open and closed ASTs, vats, totes, drums, compressed gas cylinders, and small containers with no secondary containment. Several drums showed signs of deterioration where flooding was present from associated leaks in the building

roof. Several rooms in the building were equipped with large floor drains near deteriorated containers. In addition, releases of liquid materials were observed within several areas of the building. Three of the four containers sampled during the site assessment contained characteristically hazardous wastes.

The unrestricted Site access could result in trespassers causing accidental or intentional releases of chemicals stored in on-site containers or chemical reactions that could result in the release of toxic gases. The close proximity of the Site to residences and the Middle Rouge River greatly increases potential threats to human health and environment if a release occurs.

- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released**

  The Site is no longer occupied and no longer maintained on a day-to-day basis. Therefore, the building likely will continue to deteriorate. Holes in the roof observed at several locations throughout the building will allow snow, rain, and other precipitation as well as birds and other wildlife to access the interior of the building. Precipitation that enters the building can overfill open ASTs, vats, and other containers and release their contents, as well as wash existing spills throughout the building and beyond through floor drains and other migration routes.

- **Threat of fire or explosion**

  The threat of fire or explosion at the Site is moderate based on the flammable nature of some wastes at the Site (such as paint thinners, paints, compressed gas cylinders, automotive aerosol products, and flammable containers and drums) and because the Site building is unoccupied. During the site assessment, two samples exhibited the characteristic of ignitibility. The probability for an intentional fire being set at a vacant facility will increase over time. In addition, the storage of potentially incompatible chemicals without secondary containment could result in an unintentional fire caused by the interaction of the contents of deteriorating containers.

6. CONCLUSIONS

WESTON START collected four liquid samples during the site assessment. Analytical results were compared to the criteria set forth in 40 CFR Part 261 to determine if wastes stored at the Site are considered hazardous. Sample results for three of the four containers sampled indicate the presence of characteristically hazardous wastes at the Site.

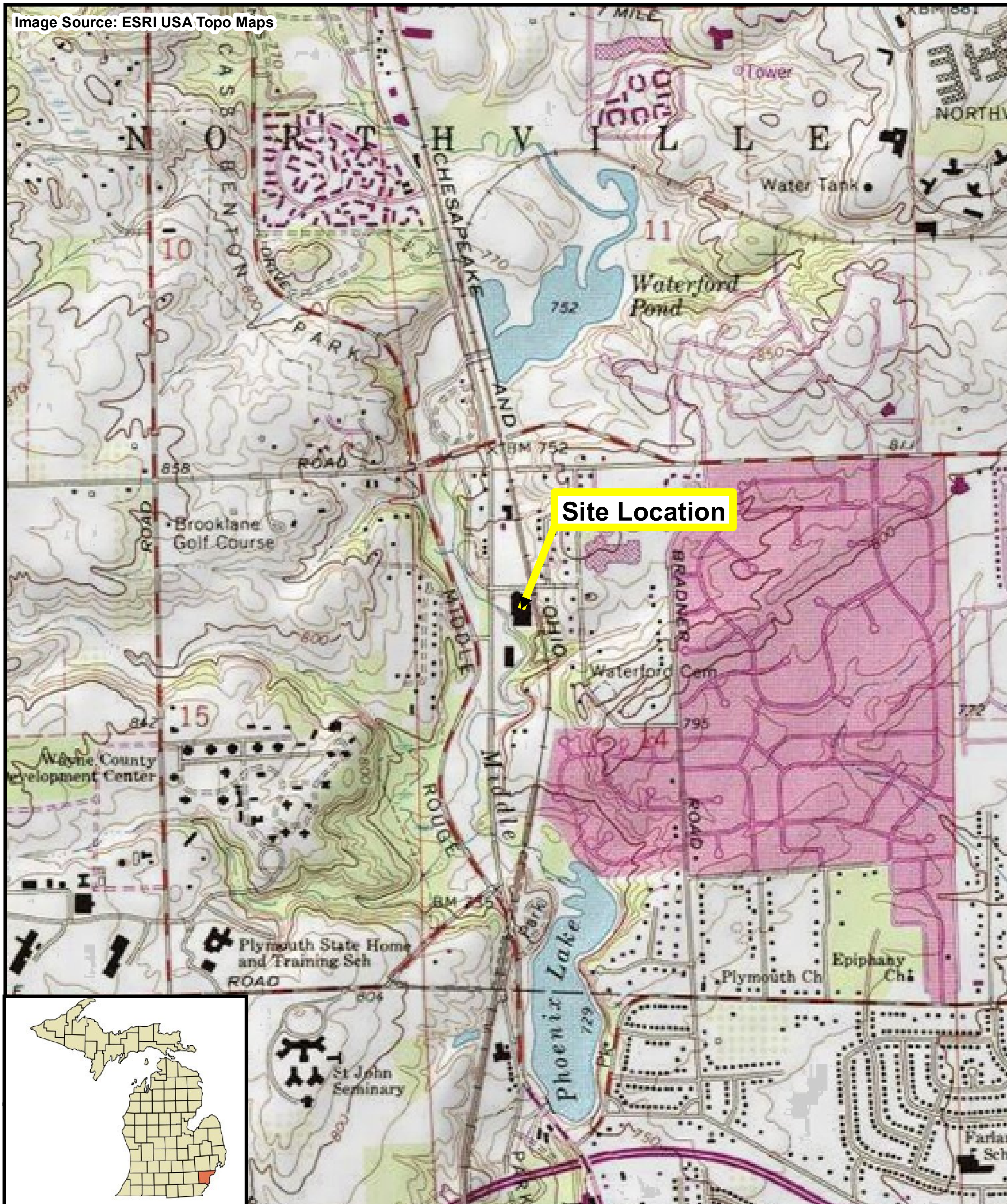
The hazards and threats summarized below also were identified during the site assessment.

- During the site assessment, the Site building contained ASTs, vats, totes, drums,

compressed gas cylinders, and small containers of various contents in varying states of deterioration, all without secondary containment.

- The Site is bordered along the south and west by the Middle Rouge River, thus increasing the likelihood that a release would adversely impact the sensitive ecosystem of this river system.
- Residences are located directly across the railroad tracks 100 feet east of the Site and less than 750 feet south and west of the Site. Meads Mill Middle School is located approximately 750 feet northeast of the Site. The presence of the residences and school increase the likelihood of exposure of residents to a release of hazardous substances at the Site.
- The on-site building has deteriorated and precipitation is leaking through the roof in several locations. The continued deterioration of the building increases the chance of further degradation of the containers, the likelihood of a fire, and the likelihood of a release to the environment.

FIGURES



June 2011

N

0 0.25 0.5 Miles

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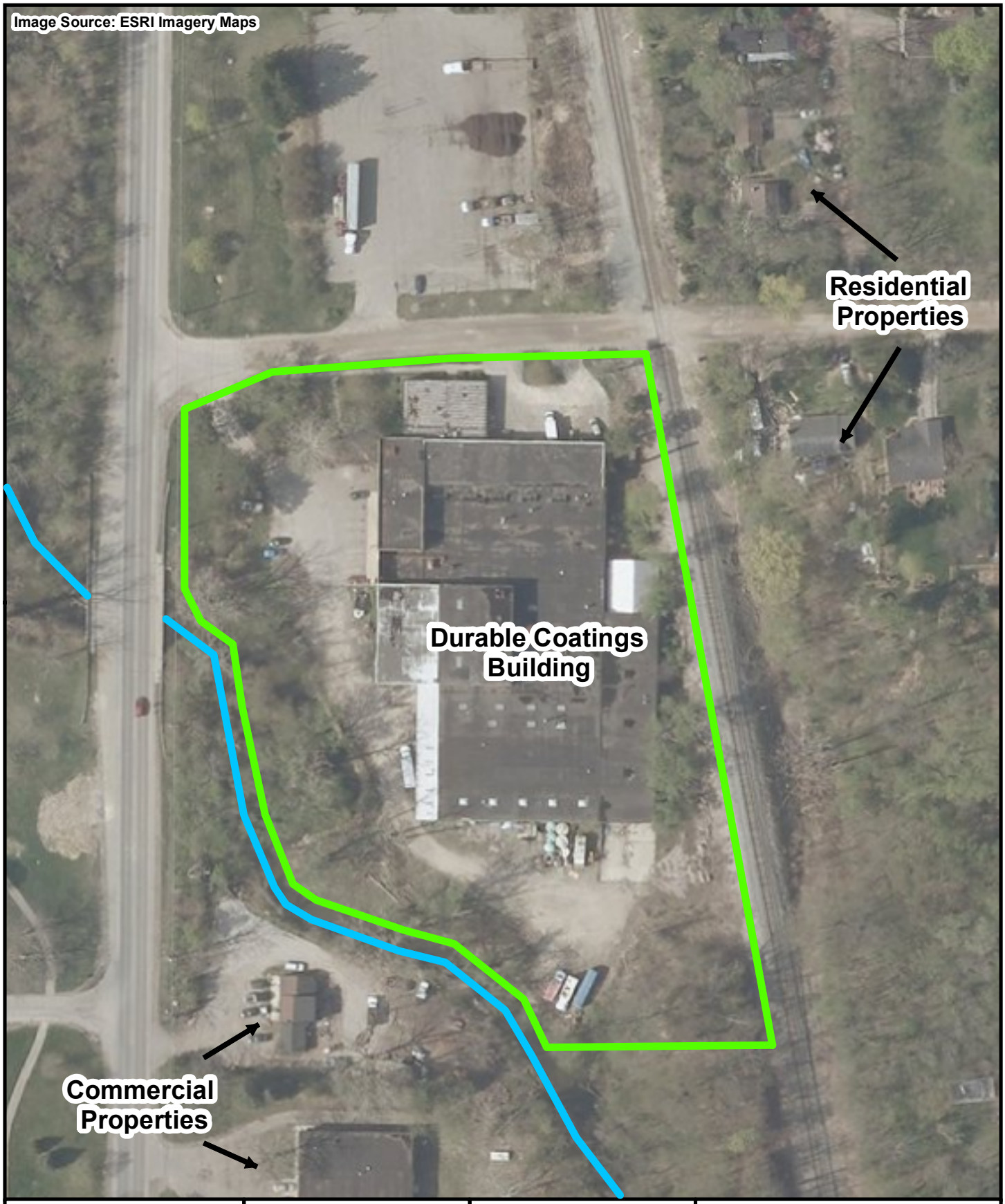
360 East Maple Road
Suite R
Troy, Michigan 48083

Figure 2-1
Site Location Map
Durable Coatings Site
Plymouth, Wayne County, Michigan

File: D:\Durable_Coatings_SA\Figure2-1_Site_Location.mxd/beerm



Site Boundary

Middle Rouge River

N

0 75 150 Feet

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360 East Maple Road
Suite R
Troy, Michigan 48083

Figure 2-2
Site Features Map
Durable Coatings Site
Plymouth, Wayne County, Michigan

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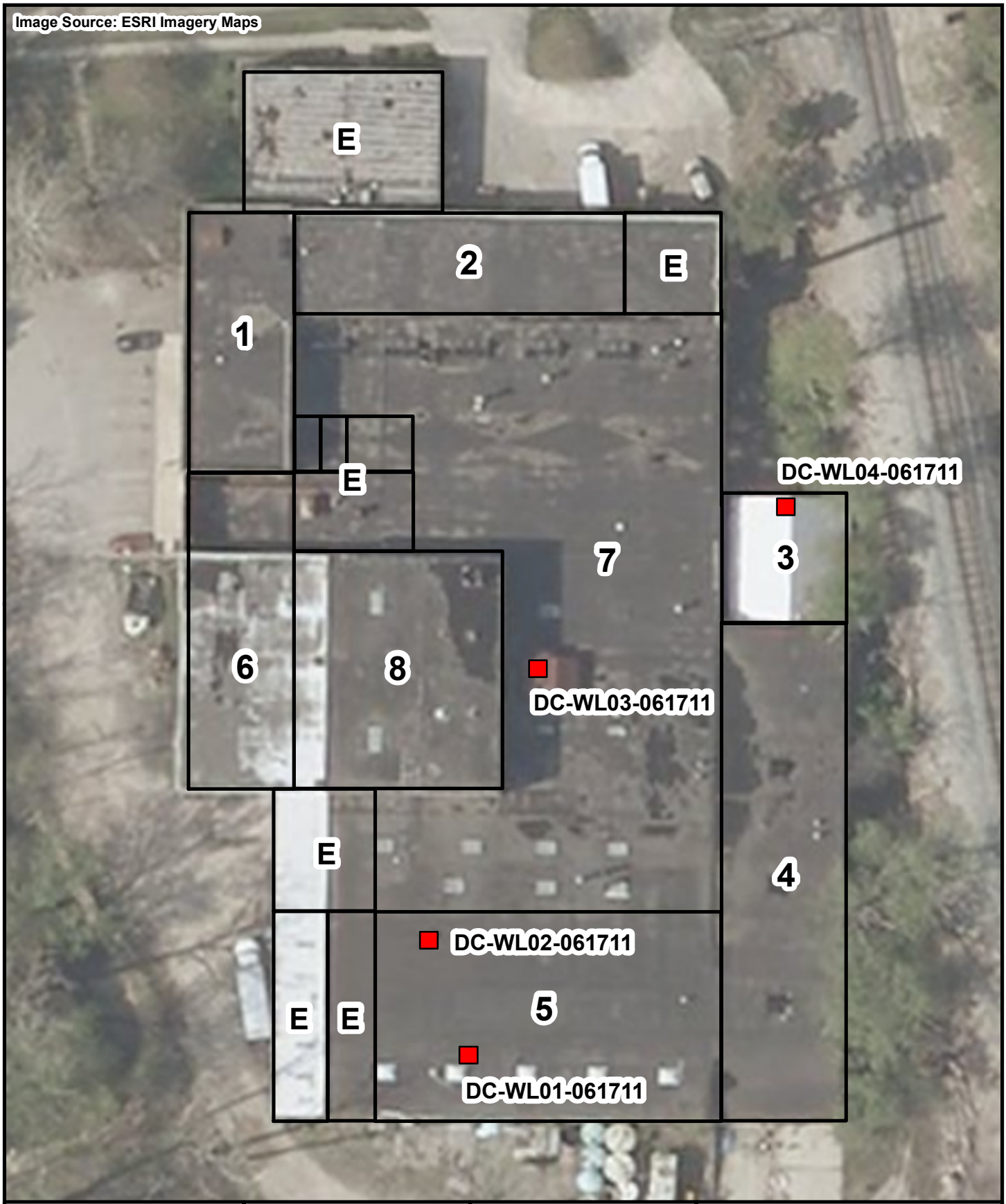

- Liquid Sample
E - Empty Room
- Room Number
- Room Boundary

Note: Sampling locations are approximate.

0 25 50 Feet

N

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Suite R
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Figure 3-1
Sampling Location Map
Durable Coatings Site
Plymouth, Wayne County, Michigan

File:D:\Durable_Coatings_SA\Figure3-1_Sampling_Location.mxd/beerm

TABLES

Table 3-1
Container Inventory
Durable Coatings Site Assessment
Plymouth, Wayne County, Michigan

Location	Approximate No.	Description	Container Size	Potential Contents	Approximate Quantity Per Container
Room 1	15	Small containers	1 gallon or less	Soaps, thinners, oils, antifreeze, joint compound	Mostly 1/2 full
	1	Compressed gas cylinder	Unknown	Propane	1/2 Full
Room 2	50	Small containers	5 gallons or less	Acetic acid, concrete bonding agent, driveway sealer, hydraulic oil, "Earthkote," antifreeze, unknown corrosives, paint	Mostly full
Room 3	3	Vats	About 3 by 15 feet	Sludge/water mixture	1/2 Full, 1/3 full, empty
	4	Steel ASTs	About 8 by 8 feet	Sludge/water mixture	2 feet of material in two ASTs; other two ASTs unknown
	3	Poly ASTs	About 6 by 6 feet	Unknown	1/4 Full
	5	Poly drums	55 gallons	Sodium hydroxide, sulfuric acid, acetic acid	Mostly 1/2 full
	2	Steel drums	55 gallons	Glycol ether, cellulose solvent	Mostly full
Room 4	5	Small containers	5 gallons or less	Paint	Mostly 1/2 full
	5	Poly drums	55 gallons	Acetic acid, caustic soda, potassium hydroxide, sodium hydroxide	1/4 Full to empty
	3	Steel drums	55 gallons	"Accelerator 131," oxidizer	Empty
	2	Poly ASTs	About 5 by 5 feet and 5 by 8 feet	Unknown	1/8 Full
	2	Compressed gas cylinders	Unknown	Oxygen, propane	Unknown
	1	Compressed gas cylinder	150 pounds	Liquid refrigerant	Unknown
	9	Poly totes	275 gallons	Emulsion solution	Nearly empty
Room 5	20	Small containers	5 gallons or less	Paint, thinners, aerosol cleaners	Mostly full
	2	Poly ASTs	About 3 by 6 feet	Unknown	Empty
	25	Steel and poly drums	55 gallons	"Accelerator 131," sodium hydroxide, caustic soda, "fixodyne," "Additive 319," phosphoric acid, n-methylpyrrolidine	Full to empty
	8	Poly totes	275 gallons	Emulsion solution, "swcoat," methylene chloride, unknown	3/4 Full to empty
	2	Compressed gas cylinders	Unknown	Oxygen, acetylene	Unknown
Room 6	34	Small containers	5 gallons or less	Paints, assorted aerosols, cleaners, oil	Mostly full
	4	Small containers	1 gallon or less	Paint	Mostly 1/2 full

Table 3-1
Container Inventory
Durable Coatings Site Assessment
Plymouth, Wayne County, Michigan

Location	Approximate No.	Description	Container Size	Potential Contents	Approximate Quantity Per Container
Room 7	30	Small containers	5 gallons or less	Muriatic acid, hydrochloric acid, phosphoric acid, dichloromethane, oil, antifreeze, lighter fluid, thinner, pH buffer solutions	Mostly full
	3	Small containers	1 gallon or less	Acidic reagent solutions	Full
	67	Steel and poly drums	55 gallons	Acetic acid, hydrochloric acid, "Accelerator 131," glycol ether, potassium fluoride, nitric acid, sulfuric acid, paint, combustible liquids, sodium hydroxide, glycol ether	Full to empty
	2	Fiber drums	55 gallons	Powdered cleaner	1/2 Full
	3	Poly ASTs	About 8 by 8 feet	Unknown	Unknown
	2	Poly ASTs	About 12 by 10 feet	Unknown	Unknown
	1	Steel ASTs	About 10 by 15 feet	Unknown	Unknown
	1	Poly AST	About 20 by 5 feet	Unknown	Unknown
	1	Poly AST	About 5 by 5 feet	Unknown	1/2 Full to empty
	1	Poly tote	275 gallons	Unknown corrosive	Nearly empty
	6	Compressed gas cylinders	Unknown	Two oxygen, two acetylene, two propane	Unknown
Room 8	70	Small containers	5 gallons or less	Paint, roof cement, sealers	Full to empty

Notes:
AST = Aboveground storage tank
Poly = Polyethylene

Table 4-1
Summary of Detections – Analytical Results Summary
Durable Coatings Assessment
Plymouth, Wayne County, Michigan

Parameter	Unit	Sample No.	DC-WL01-061711		DC-WL02-061711		DC-WL03-061711		DC-WL04-061711	
		Sampling Date	6/17/2011		6/17/2011		6/17/2011		6/17/2011	
		Sample Medium	Liquid		Liquid		Liquid		Liquid	
		Description	Thick white liquid from drum labeled "White Peel"		Clear liquid from drum labeled "N-Methypyrrolidone"		Clear liquid from drum labeled "Acetic Acid Glacial"		Clear liquid from drum labeled "Sodium Hydroxide"	
		40 CFR Part 261 Regulatory Level [a]	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
TCLP Metals										
Arsenic	mg/L	5	ND	0.2	ND	0.2	NA	NA	ND	0.2
Barium	mg/L	100	0.60	0.1	ND	0.1	NA	NA	0.40	0.1
Cadmium	mg/L	1	ND	0.04	ND	0.04	NA	NA	ND	0.04
Chromium	mg/L	5	ND	0.01	0.11	0.01	NA	NA	ND	0.01
Copper	mg/L	NA	ND	0.1	0.50	0.1	NA	NA	ND	0.1
Lead	mg/L	5	ND	0.2	ND	0.2	NA	NA	ND	0.2
Mercury	mg/L	0.2	ND	0.002	ND	0.005	NA	NA	ND	0.002
Selenium	mg/L	1	ND	0.3	ND	0.3	NA	NA	ND	0.3
Silver	mg/L	5	ND	0.1	ND	0.1	NA	NA	ND	0.1
Zinc	mg/L	NA	0.32	0.07	12	0.07	NA	NA	0.20	0.07
TCLP VOCs										
1,1-Dichloroethene	mg/L	0.7	ND	44	ND	0.07	ND	0.07	ND	0.07
1,2-Dichloroethane	mg/L	0.5	ND	44	ND	0.05	ND	0.05	ND	0.05
1,4-Dichlorobenzene	mg/L	7.5	ND	44	ND	0.75	ND	0.75	ND	0.75
Benzene	mg/L	0.5	ND	44	ND	0.05	ND	0.05	ND	0.05
Carbon tetrachloride	mg/L	0.5	ND	44	ND	0.05	ND	0.05	ND	0.05
Chlorobenzene	mg/L	100	ND	44	ND	10	ND	10	ND	10
Chloroform	mg/L	6	ND	44	ND	0.6	ND	0.6	ND	0.6
Methyl ethyl ketone	mg/L	200	**17,000**	44	ND	20	ND	20	ND	20
Tetrachloroethene	mg/L	0.7	ND	44	ND	0.07	ND	0.07	ND	0.07
Trichloroethene	mg/L	0.5	ND	44	ND	0.05	ND	0.05	ND	0.05
Vinyl chloride	mg/L	0.2	ND	44	ND	0.02	ND	0.02	ND	0.02

Table 4-1
Summary of Detections – Analytical Results Summary
Durable Coatings Assessment
Plymouth, Wayne County, Michigan

Parameter	Unit	Sample No.	DC-WL01-061711		DC-WL02-061711		DC-WL03-061711		DC-WL04-061711	
		Sampling Date	6/17/2011		6/17/2011		6/17/2011		6/17/2011	
		Sample Medium	Liquid		Liquid		Liquid		Liquid	
		Description	Thick white liquid from drum labeled "White Peel"		Clear liquid from drum labeled "N-Methypyrrolidone"		Clear liquid from drum labeled "Acetic Acid Glacial"		Clear liquid from drum labeled "Sodium Hydroxide"	
		40 CFR Part 261 Regulatory Level [a]	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
TCLP SVOCs										
2,4,5 Trichlorophenol	mg/L	400	ND	40	ND J	40	ND	40	ND J	40
2,4,6 Trichlorophenol	mg/L	2	ND	0.2	ND J	20	ND	0.2	ND J	0.2
2,4 Dinitrotoluene	mg/L	0.13	ND	0.02	ND	20	ND	0.02	ND	0.02
Cresols	mg/L	200	ND	20	ND J	20	ND	20	ND J	20
Hexachlorobenzene	mg/L	0.13	ND	0.02	ND	20	ND	0.02	ND	0.02
Hexachlorobutadiene	mg/L	0.5	ND	0.05	ND	20	ND	0.05	ND	0.05
Hexachloroethane	mg/L	3	ND	0.3	ND	20	ND	0.3	ND	0.3
Nitrobenzene	mg/L	2	ND	0.2	ND	20	ND	0.2	ND	0.2
Pentachlorophenol	mg/L	100	ND	10	ND J	20	ND	10	ND J	10
Pyridine	mg/L	5	ND	0.5	ND	20	ND	0.5	ND	0.5
Flashpoint	°F	<140	**50**	60-200	DNF	60-200	**115**	60-200	DNF	60-200
pH	SU	< 2, >12.5	4.0	NL	7.0	NL	4.9	NL	**14.0**	NL

Notes:

Bold shaded results exceed 40 CFR Part 261 regulatory levels.

°F = Degree Fahrenheit

DNF = Did not flash

J = Estimated value

mg/L = Milligram per liter

NA= Not analyzed or not available

ND = Not detected

NL = Not listed

SU = Standard unit

SVOC = Semivolatile organic compound

TCLP = Toxicity Characteristic Leaching Procedure

VOC = Volatile organic compound

a Regulatory level from Title 40 of the *Code of Federal Regulations* (40 CFR), Part 261, Identification and Listing of Hazardous Waste

APPENDIX A
PHOTOGRAPHIC DOCUMENTATION

Site: Durable Coatings
Photograph No.: 1 **Date:** 6/17/11
Direction: Southeast **Photographer:** Matthew Beer
Subject: Entrance to the Durable Coatings Corporation building

Site: Durable Coatings
Photograph No.: 2 **Date:** 6/17/11
Direction: Southeast **Photographer:** Matthew Beer
Subject: Durable Coatings Corporation building

Site: Durable Coatings
Photograph No.: 3 **Date:** 6/17/11
Direction: Northwest **Photographer:** Matthew Beer
Subject: Middle Rouge River bordering the Site

Site: Durable Coatings
Photograph No.: 4 **Date:** 6/17/11
Direction: South **Photographer:** Matthew Beer
Subject: Poly and steel drums in Site building

Site: Durable Coatings
Photograph No.: 5 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Unknown spill on floor of building

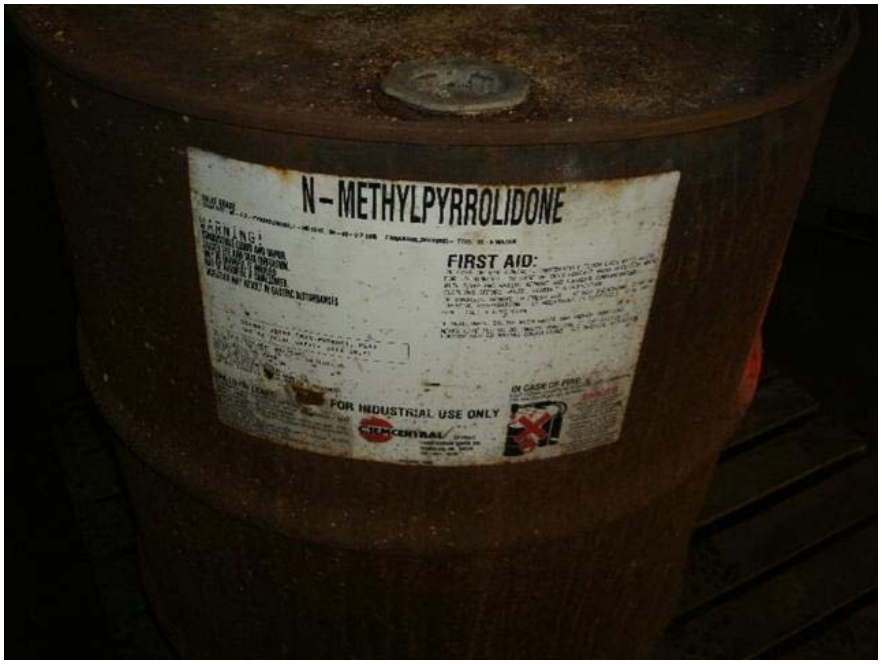
Site: Durable Coatings
Photograph No.: 6 **Date:** 6/17/11
Direction: Southeast **Photographer:** Matthew Beer
Subject: Evidence of structural deterioration (water on floor) and unknown overspray onto wall

Site: Durable Coatings
Photograph No.: 7 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Unknown liquid inside vat

Site: Durable Coatings
Photograph No.: 8 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Rusting steel drum on water-flooded floor

Site: Durable Coatings
Photograph No.: 9 **Date:** 6/17/11
Direction: Southeast **Photographer:** Matthew Beer
Subject: Abandoned drums

Site: Durable Coatings
Photograph No.: 10 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Unknown liquid inside poly tote



Site: Durable Coatings
Photograph No.: 11 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Steel drum labeled as n-methylpyrrolidone

Site: Durable Coatings
Photograph No.: 12 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Abandoned corrosives in containers

Site: Durable Coatings
Photograph No.: 13 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Unknowns spilled on floor

Site: Durable Coatings
Photograph No.: 14 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Bulging steel drum

Site: Durable Coatings
Photograph No.: 15 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Abandoned drums

Site: Durable Coatings
Photograph No.: 16 **Date:** 6/17/11
Direction: Southwest **Photographer:** Matthew Beer
Subject: Abandoned paint cans on second floor

Site: Durable Coatings
Photograph No.: 17 **Date:** 6/17/11
Direction: North **Photographer:** Matthew Beer
Subject: Abandoned ASTs

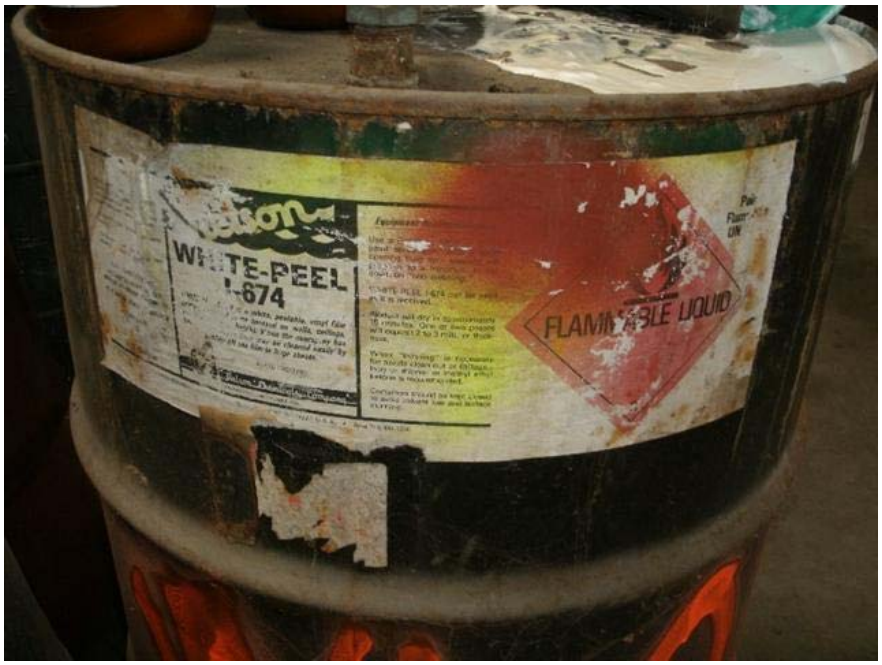
Site: Durable Coatings
Photograph No.: 18 **Date:** 6/17/11
Direction: Southwest **Photographer:** Matthew Beer
Subject: Abandoned compressed gas cylinders

Site: Durable Coatings
Photograph No.: 19 **Date:** 6/17/11
Direction: West **Photographer:** Matthew Beer
Subject: Laboratory room

Site: Durable Coatings
Photograph No.: 20 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Steel drum labeled as glycol ether

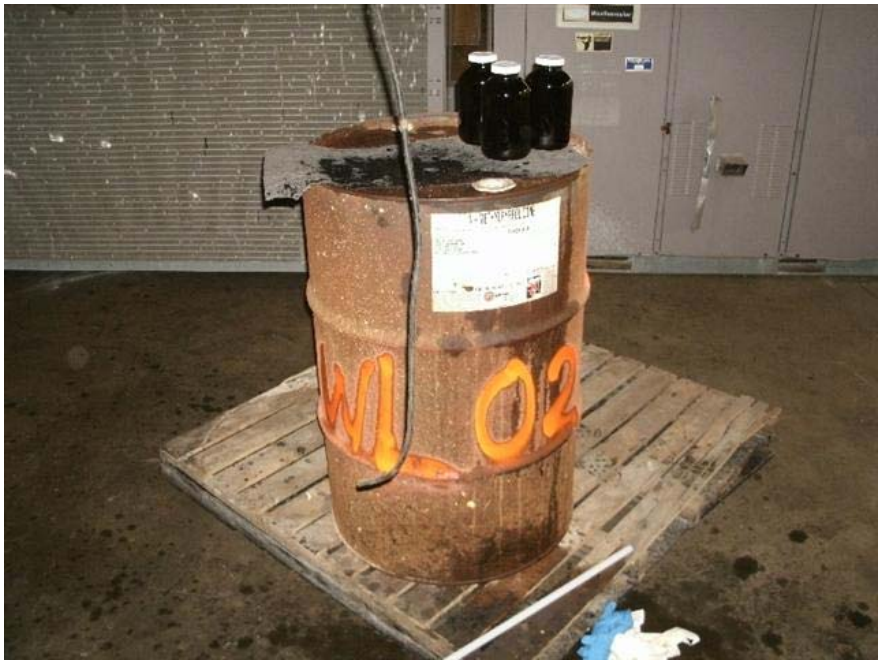
Site: Durable Coatings
Photograph No.: 21 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Abandoned compressed gas cylinders

Site: Durable Coatings
Photograph No.: 22 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Leaking containers



Site: Durable Coatings
Photograph No.: 24 **Date:** 6/17/11
Direction: West **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL01-061711 was collected

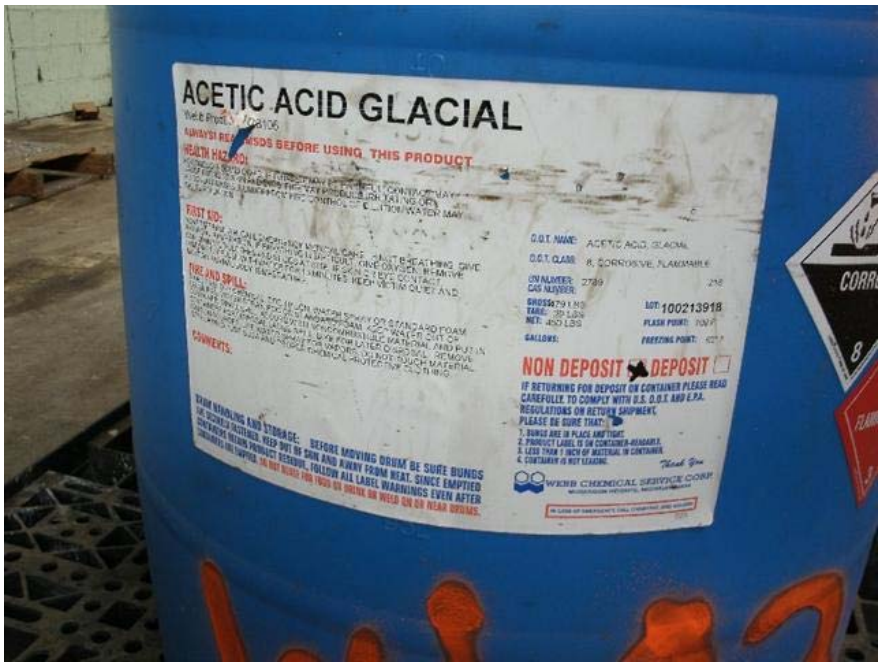
Site: Durable Coatings
Photograph No.: 25 **Date:** 6/17/11
Direction: West **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL01-061711 was collected



Site: Durable Coatings
Photograph No.: 26 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL02-061711 was collected

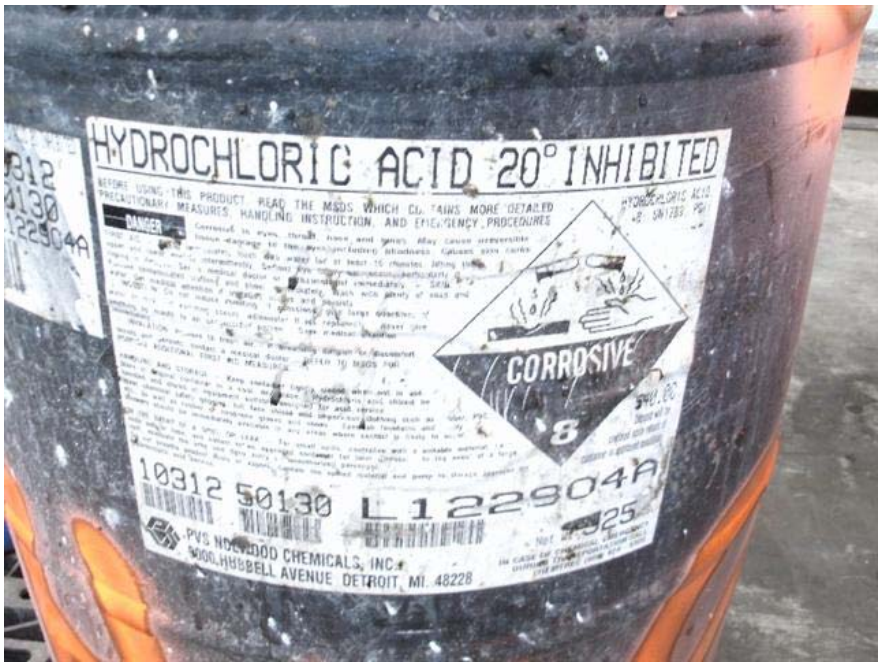
Site: Durable Coatings
Photograph No.: 27 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL02-061711 was collected

Site: Durable Coatings
Photograph No.: 28 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL03-061711 was collected



Site: Durable Coatings
Photograph No.: 29 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL03-061711 was collected

Site: Durable Coatings
Photograph No.: 30 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Poly drum labeled as concentrated hydrochloric acid



Site: Durable Coatings
Photograph No.: 31 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Hydrochloric acid label on poly drum

Site: Durable Coatings
Photograph No.: 32 **Date:** 6/17/11
Direction: South **Photographer:** Matthew Beer
Subject: Abandoned drums

Site: Durable Coatings
Photograph No.: 33 **Date:** 6/17/11
Direction: Down **Photographer:** Matthew Beer
Subject: Drum from which sample DC-WL04-061711 was collected

Site: Durable Coatings
Photograph No.: 34 **Date:** 6/17/11
Direction: Southeast **Photographer:** Matthew Beer
Subject: Floor drain located next to poly drums

APPENDIX B
LABORATORY ANALYTICAL REPORT AND DATA VALIDATION REPORT

DURABLE COATINGS SITE
PLYMOUTH, MICHIGAN
DATA VALIDATION REPORT

Date: June 28, 2011
Laboratory: Brighton Analytical L.L.C. (Brighton), Brighton, Michigan
Laboratory Project #: 14861
Data Validation Performed By: Lisa Graczyk, Weston Solutions, Inc. (WESTON) Superfund Technical Assessment and Response Team (START)
Weston Analytical Work Order #/TDD #: 20405.016.001.1483.00/S05-0001-1105-020

This data validation report has been prepared by WESTON START under the START III Region V contract. This report documents the data validation for four waste liquid samples collected for the Durable Coatings Site that were analyzed for the following parameters and U.S. Environmental Protection Agency (U.S. EPA) methods:

- Toxicity Characteristic Leaching Procedure (TCLP) Volatile Organic Compounds (VOC) by SW-846 Methods 1311 and 8260B
- TCLP Semivolatile Organic Compounds (SVOC) by SW-846 Methods 1311 and 8270C
- TCLP Metals by SW-846 Methods 1311, 6020, and 7470A
- Ignitability (flashpoint) by SW-846 Method 1010
- pH by SW-846 Method 9041A and Standard Method (SM) 4500-H+B

A level II data package was requested from Brighton. The data validation was conducted in general accordance with the U.S. EPA "Contract Laboratory Program National Functional Guidance for Superfund Organic Methods Data Review" dated June 2008 and "Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review" dated January 2010. The Attachment contains the results summary sheets with the hand-written qualifiers applied during data validation.

Data Validation Report
Durable Coatings Site
Brighton Analytical L.L.C..
Laboratory Project #: 14861

TCLP VOCs BY SW-846 METHODS 1311 AND 8260B

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
DC-WL01-061711	BV03691	Liquid	6/17/2011	6/22/2011
DC-WL02-061711	BV03692	Liquid	6/17/2011	6/22/2011
DC-WL03-061711	BV03693	Liquid	6/17/2011	6/21/2011
DC-WL04-061711	BV03694	Liquid	6/17/2011	6/21/2011

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection.

3. Blanks

A method blank was analyzed with the TCLP VOC analysis. The method blank was free of target compound contamination above the reporting limit.

4. Surrogate Results

The surrogate recovery results were within the laboratory-established quality control (QC) limits.

5. Laboratory Control Sample (LCS) Results

The LCS recoveries were within laboratory QC limits.

6. Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

Brighton did not analyze a site-specific MS and MSD with this work order. For the MS/MSD that was analyzed, the percent recoveries and relative percent differences (RPD) were acceptable.

7. Overall Assessment

The TCLP VOC data are acceptable for use based on the information received.

Data Validation Report
Durable Coatings Site
Brighton Analytical L.L.C..
Laboratory Project #: 14861

TCLP SVOCs BY SW-846 METHODS 1311 AND 8270C

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Prepared	Date Analyzed
DC-WL01-061711	BV03691	Liquid	6/17/2011	6/22/2011	6/22/2011
DC-WL02-061711	BV03692	Liquid	6/17/2011	6/20/2011	6/22/2011
DC-WL03-061711	BV03693	Liquid	6/17/2011	6/22/2011	6/22/2011
DC-WL04-061711	BV03694	Liquid	6/17/2011	6/22/2011	6/22/2011

2. Holding Times

The samples were analyzed within the required holding time limit of 14 days from sample collection to extraction and 40 days from extraction to analysis.

3. Blanks

A method blank was analyzed with the TCLP SVOC analyses. The method blank was free of target compound contamination above the reporting limit.

4. Surrogate Results

The surrogate recoveries were within the laboratory-established QC limits except for as follows. In samples DC-WL02-061711 and DC-WL04-061711, the three phenolic surrogates (acid extractables) had very low recoveries. The quantitation limits for the acid-extractable compounds were flagged “UJ” as estimated in these two samples.

5. LCS Results

The percent recoveries for the LCS results were within the laboratory-established QC limits.

6. MS and MSD Results

Brighton did not analyze a site-specific MS and MSD with this work order. For the MS/MSD that was analyzed, the percent recoveries and RPDs were acceptable.

7. Overall Assessment

The TCLP SVOC data are acceptable for use as qualified based on the information received.

TCLP METALS BY SW-846 METHODS 1311, 6020, AND 7470A

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
DC-WL01-061711	BV03691	Liquid	6/17/2011	6/22/2011 – 6/23/2011
DC-WL02-061711	BV03692	Liquid	6/17/2011	6/22/2011 – 6/23/2011
DC-WL04-061711	BV03694	Liquid	6/17/2011	6/22/2011 – 6/23/2011

2. Holding Times

The samples were analyzed within the required holding time limit of 28 days from sample collection to analysis for mercury and 180 days from sample collection to analysis for all other metals.

3. Blank Results

Method blanks were analyzed with the metals analysis. The blanks were free of target analyte contamination above the reporting limits. There were some detections of target analytes below the reporting limit in the method blank; however, these metals were either not detected in the samples or detected at a much higher concentration. No qualifications were required.

4. LCS Results

The LCS recoveries were within the laboratory-established QC limits for target analytes.

5. MS and MSD Results

Brighton did not analyze a site-specific MS and MSD with the TCLP metals analysis. For the sample that was used, the percent recoveries and RPDs for the MS and MSD were acceptable.

6. Overall Assessment

The TCLP metals data are acceptable for use based on the information received.

GENERAL CHEMISTRY PARAMETERS (Ignitability by SW-846 Method 1010 and pH by SW-846 Method 9041A and SM 4500-H+B)

1. Samples

The following table summarizes the samples for which this data validation is being conducted.

Samples	Lab ID	Matrix	Date Collected	Date Analyzed
DC-WL01-061711	BV03691	Liquid	6/17/2011	6/23/2011
DC-WL02-061711	BV03692	Liquid	6/17/2011	6/23/2011
DC-WL03-061711	BV03693	Liquid	6/17/2011	6/23/2011
DC-WL04-061711	BV03694	Liquid	6/17/2011	6/23/2011

2. Holding Times

The holding times for pH and ignitability were acceptable. There is no specific holding time limit for these analyses. The methods state that the samples are to be analyzed as soon as possible.

3. LCS Results

For the ignitability and pH analyses, a check standard was analyzed with acceptable recoveries.

4. Laboratory Duplicate Results

A laboratory duplicate was analyzed with the ignitability and pH analyses. The duplicate RPDs were within QC limits.

5. Overall Assessment

The ignitability and pH data are acceptable for use based on the information received.

Data Validation Report
Durable Coatings Site
Brighton Analytical L.L.C..
Laboratory Project #: 14861

ATTACHMENT

BRIGHTON ANALYTICAL L.L.C.
RESULTS SUMMARY WITH QUALIFIERS

Brighton Analytical L.L.C.™
2105 Pless Drive · Brighton, Michigan 48114 · Phone (810) 229-7575 · Fax (810) 229-8650 · E-mail bai-brighton@sbcglobal.net

June 28, 2011

Weston Solutions of Michigan, Inc.
360 E. Maple Road
Suite R
Troy, MI 48083

Subject: Durable Coatings
20405.016.001.1480.00

Dear Mr. Clark :

Thank you for making Brighton Analytical, L.L.C. your laboratory of choice. Enclosed are the results for the samples submitted on 06/17/2011 for the above mentioned project. Duplicate copies can be supplied at your request for a fee of $20.00 per copy.

The invoice for this project will be mailed with copy of report. If you have any questions concerning the invoice or the data, please don't hesitate to contact our office. Please reference Brighton Analytical, L.L.C. project ID 14861 when calling with any questions regarding this project.

Sincerely,
Brighton Analytical, L.L.C.

Brighton Analytical, L.L.C.™

2105 Pless Drive
Brighton, MI 48114

Phone: 810-229-7575
Fax: 810-229-8650

BA PROJECT #: 14861

COMPANY NAME: Weston Solutions Inc.

PROJECT NAME: Durable Coatings

PROJECT NUMBER: 20405.016.001.1480.00

P. O. NUMBER:

REQUESTED TURNAROUND: (circle one)
Rush: 1-3 business days (verify with lab & specify date needed)
Expedited: 5 business days
Standard: 10 business days

If RUSH, approved by: _____

ABBREVIATIONS FOR MATRIX
S = Solid
L = Liquid
DW = Drinking H_2O
WW = Wastewater
O = Oil
P = Wipe
A = Air (Tedlar Bag)
F = Filter
T = Tube
M = Methanol

Analysis Requested/Method

Container Type & Quantity

Brighton ID #	Sample Description	Sampling Time	Sampling Date	VOA'S (PRES) Y N	HDPE UNPRESERVED	HDPE HNO_3	HDPE H_2SO_4	HDPE NAOH	AMBER	GLASS H_2SO_4	GLASS, NO PRESERVATIVE	MEOH Preserved: (F)ield or (L)ab Preserved	Sample Matrix	FOR DISSOLVED METALS (L) LAB TO FILTER (F) FIELD FILTERED	TCLP VOC	TCLP SVOC	TCLP Metals	Flashpoint	pH		
1) BVO 3691	DC-WL01-061711	1150	6/17/11						3				L		✓	✓	✓	✓	✓		
2) 92	DC-WL02-061711	1200							3				L		✓	✓	✓	✓	✓		
3) 93	DC-WL03-061711	1210							3				L		✓	✓		✓	✓		
4) 94	DC-WL04-061711	1230							3				L		✓	✓	✓	✓	✓		
5) ~~2695~~	~~WL01 MS/D 6/20~~																				
6) ~~2696~~	~~WL04 MS/D~~																				
7)	QC BATCHED WITH BA 14861																				
8)																					
9)																					
10)																					
11)																					

PAGE 1 OF 1

REPORT RESULTS TO:

Weston Solutions Inc
360 E. Maple Suite R
Troy MI 48083
Attn: Alex Clark
A.clark@westonsolutions.com
PHONE: 248-658-5015
FAX: 248-658-5000

Sample received within holding time? yes ☐ no ☐

For TCLP **ONLY** – Federal Limits ☐ Other ☐

Samples intact: yes ☐ no ☐ (if no, see below)

Note samples if not intact:

Headspace/bubbles in VOA'S? yes ☐ no ☐ n/a ☐

Sample containers and COC match? yes ☐ no ☐

Comments:

WL01-WL02 high VOC's on PID
WL02 labeled Methylpyrrolidone
WL03 labeled Acetic Acid Glacial
WL04 labeled Sodium Hydroxide

Temperature of Samples °C: _____

Please fill out the Chain of Custody completely and review. Incorrect or incomplete information will result in a "hold" on all analyses.

Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	Trans. #	RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:
1	Matthew Beer		6-16-11	4:30pm	3				
2			6-17-11		4				

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 6/17/2011
Submit Date: 6/17/2011
Report Date: 6/28/2011

To: Weston Solutions of Michigan, Inc.
360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03691**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL01-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	ug/L	200	SW846 6020	GW	6/22/2011
TCLP Barium	**600**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Cadmium	**Not detected**	ug/L	40	SW846 6020	GW	6/22/2011
TCLP Chromium	**Not detected**	ug/L	10	SW846 6020	GW	6/22/2011
TCLP Copper	**Not detected**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Lead	**Not detected**	ug/L	200	SW846 6020	GW	6/22/2011
TCLP Mercury	**Not detected**	ug/L	2	SW846 7470A	KW	6/23/2011
TCLP Selenium	**Not detected**	ug/L	300	SW846 6020	GW	6/22/2011
TCLP Silver	**Not detected**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Zinc	**320**	ug/L	70	SW846 6020	GW	6/22/2011
TCLP Mercury (digestion)	**Digested**			7470	KW	6/23/2011
TCLP Metal (digestion)	**Digested**			3015	LS	6/22/2011
Inorganic Analysis						
Ignitability	**FLASH @ 50**	deg F	60-200	SW846 1010	GW	6/23/2011
pH (paper strip)	**4.0**	S.I.		SW846 9041A	LS	6/23/2011
TCLP Semi-Volatile						
Cresol	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
2,4-Dinitrotoluene	**Not detected**	ug/L	20	SW846 8270C	RG	6/22/2011
Hexachlorobenzene	**Not detected**	ug/L	20	SW846 8270C	RG	6/22/2011
Hexachlorobutadiene	**Not detected**	ug/L	50	SW846 8270C	RG	6/22/2011
Hexachloroethane	**Not detected**	ug/L	300	SW846 8270C	RG	6/22/2011
Nitrobenzene	**Not detected**	ug/L	200	SW846 8270C	RG	6/22/2011
Pentachlorophenol	**Not detected**	ug/L	10000	SW846 8270C	RG	6/22/2011
Pyridine	**Not detected**	ug/L	500	SW846 8270C	RG	6/22/2011
2,4,5-Trichlorophenol	**Not detected**	ug/L	40000	SW846 8270C	RG	6/22/2011
2,4,6-Trichlorophenol	**Not detected**	ug/L	200	SW846 8270C	RG	6/22/2011
TCLP BNA (extraction)	**Extracted**			3510C/3545	MB	6/22/2011

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 6/17/2011
Submit Date: 6/17/2011
Report Date: 6/28/2011

To: Weston Solutions of Michigan, Inc.
360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03691**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL01-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**134**	%		8270/625	RG	6/22/2011
d5-Nitrobenzene	**135**	%		8270/625	RG	6/22/2011
d5-Phenol	**129**	%		8270/625	RG	6/22/2011
2-Fluorobiphenyl	**139**	%		8270/625	RG	6/22/2011
2-Fluorophenol	**111**	%		8270/625	RG	6/22/2011
2,4,6-Tribromophenol	**109**	%		8270/625	RG	6/22/2011
TCLP Volatile Analysis						
Benzene	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Carbon tetrachloride	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Chlorobenzene	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Chloroform	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
1,4-Dichlorobenzene	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
1,2-Dichloroethane	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
1,1-Dichloroethene	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Methyl ethyl ketone	**17000000**	ug/L	44000	SW846 8260B	RG	6/22/2011
Tetrachloroethene	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Trichloroethene	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Vinyl chloride	**Not detected**	ug/L	44000	SW846 8260B	RG	6/22/2011
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**96**	%		8260/624	RG	6/22/2011
d4-1,2 Dichloroethane	**81**	%		8260/624	RG	6/22/2011
d8-Toluene	**98**	%		8260/624	RG	6/22/2011

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 6/17/2011
Submit Date: 6/17/2011
Report Date: 6/28/2011

To: Weston Solutions of Michigan, Inc.
360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03691**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL01-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by: Wood
Date: 6/28/11

pH results qualified due to received past hold time.
Elevated volatile dl due to sample matrix.

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 6/17/2011
Submit Date: 6/17/2011
Report Date: 6/24/2011

To: Weston Solutions of Michigan, Inc.
360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03692**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL02-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	ug/L	200	SW846 6020	GW	6/22/2011
TCLP Barium	**Not detected**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Cadmium	**Not detected**	ug/L	40	SW846 6020	GW	6/22/2011
TCLP Chromium	**110**	ug/L	10	SW846 6020	GW	6/22/2011
TCLP Copper	**500**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Lead	**Not detected**	ug/L	200	SW846 6020	GW	6/22/2011
TCLP Mercury	**Not detected***	ug/L	5	SW846 7470A	KW	6/23/2011
TCLP Selenium	**Not detected**	ug/L	300	SW846 6020	GW	6/22/2011
TCLP Silver	**Not detected**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Zinc	**12000**	ug/L	70	SW846 6020	GW	6/22/2011
TCLP Mercury (digestion)	**Digested**			7470	KW	6/23/2011
TCLP Metal (digestion)	**Digested**			3015	LS	6/22/2011
Inorganic Analysis						
Ignitability	**Did Not Flash**	deg F	60-200	SW846 1010	GW	6/23/2011
pH	**7.0**	S.I.		SM4500-H+B	LS	6/23/2011
TCLP Semi-Volatile						
Cresol	**Not detected**	ug/L	20000 UJ	SW846 8270C	RG	6/22/2011
2,4-Dinitrotoluene	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
Hexachlorobenzene	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
Hexachlorobutadiene	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
Hexachloroethane	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
Nitrobenzene	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
Pentachlorophenol	**Not detected**	ug/L	20000 UJ	SW846 8270C	RG	6/22/2011
Pyridine	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
2,4,5-Trichlorophenol	**Not detected**	ug/L	40000 UJ	SW846 8270C	RG	6/22/2011
2,4,6-Trichlorophenol	**Not detected**	ug/L	20000 UJ	SW846 8270C	RG	6/22/2011
TCLP BNA (extraction)	**Filtered**			3510C/3545	MB	6/20/2011

LH 6/28/11

Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

Sample Date: 6/17/2011
Submit Date: 6/17/2011
Report Date: 6/24/2011

To: Weston Solutions of Michigan, Inc.
360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03692**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL02-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**106**	%		8270/625	RG	6/22/2011
d5-Nitrobenzene	**107**	%		8270/625	RG	6/22/2011
d5-Phenol	**0****	%		8270/625	RG	6/22/2011
2-Fluorobiphenyl	**101**	%		8270/625	RG	6/22/2011
2-Fluorophenol	**0****	%		8270/625	RG	6/22/2011
2,4,6-Tribromophenol	**0****	%		8270/625	RG	6/22/2011
TCLP Volatile Analysis						
Benzene	**Not detected**	ug/L	50	SW846 8260B	RG	6/22/2011
Carbon tetrachloride	**Not detected**	ug/L	50	SW846 8260B	RG	6/22/2011
Chlorobenzene	**Not detected**	ug/L	10000	SW846 8260B	RG	6/22/2011
Chloroform	**Not detected**	ug/L	600	SW846 8260B	RG	6/22/2011
1,4-Dichlorobenzene	**Not detected**	ug/L	750	SW846 8260B	RG	6/22/2011
1,2-Dichloroethane	**Not detected**	ug/L	50	SW846 8260B	RG	6/22/2011
1,1-Dichloroethene	**Not detected**	ug/L	70	SW846 8260B	RG	6/22/2011
Methyl ethyl ketone	**Not detected**	ug/L	20000	SW846 8260B	RG	6/22/2011
Tetrachloroethene	**Not detected**	ug/L	70	SW846 8260B	RG	6/22/2011
Trichloroethene	**Not detected**	ug/L	50	SW846 8260B	RG	6/22/2011
Vinyl chloride	**Not detected**	ug/L	20	SW846 8260B	RG	6/22/2011
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**108**	%		8260/624	RG	6/22/2011
d4-1,2 Dichloroethane	**106**	%		8260/624	RG	6/22/2011
d8-Toluene	**104**	%		8260/624	RG	6/22/2011

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Brighton, Michigan 48116
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BA Report Number: **14861**
BA Sample ID: **BV03692**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL02-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by: MTWood
Date: 6/28/11

pH results qualified due to received past hold time.
*Elevated dl due to sample matrix.
Elevated semi-volatile dl due to sample matrix.
**Out of range due to sample matrix.

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2105 Pless Drive
Brighton, Michigan 48116
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Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03693**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL03-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Inorganic Analysis						
Ignitability	**FLASH @ 115**	deg F	60-200	SW846 1010	GW	6/23/2011
pH	**4.9**	S.I.		SM4500-H+B	LS	6/23/2011
TCLP Semi-Volatile						
Cresol	**Not detected**	ug/L	20000	SW846 8270C	RG	6/22/2011
2,4-Dinitrotoluene	**Not detected**	ug/L	20	SW846 8270C	RG	6/22/2011
Hexachlorobenzene	**Not detected**	ug/L	20	SW846 8270C	RG	6/22/2011
Hexachlorobutadiene	**Not detected**	ug/L	50	SW846 8270C	RG	6/22/2011
Hexachloroethane	**Not detected**	ug/L	300	SW846 8270C	RG	6/22/2011
Nitrobenzene	**Not detected**	ug/L	200	SW846 8270C	RG	6/22/2011
Pentachlorophenol	**Not detected**	ug/L	10000	SW846 8270C	RG	6/22/2011
Pyridine	**Not detected**	ug/L	500	SW846 8270C	RG	6/22/2011
2,4,5-Trichlorophenol	**Not detected**	ug/L	40000	SW846 8270C	RG	6/22/2011
2,4,6-Trichlorophenol	**Not detected**	ug/L	200	SW846 8270C	RG	6/22/2011
TCLP BNA (extraction)	**Extracted**			3510C/3545	MB	6/22/2011
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**75**	%		8270/625	RG	6/22/2011
d5-Nitrobenzene	**78**	%		8270/625	RG	6/22/2011
d5-Phenol	**67**	%		8270/625	RG	6/22/2011
2-Fluorobiphenyl	**71**	%		8270/625	RG	6/22/2011
2-Fluorophenol	**65**	%		8270/625	RG	6/22/2011
2,4,6-Tribromophenol	**71**	%		8270/625	RG	6/22/2011
TCLP Volatile Analysis						
Benzene	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
Carbon tetrachloride	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
Chlorobenzene	**Not detected**	ug/L	10000	SW846 8260B	RG	6/21/2011
Chloroform	**Not detected**	ug/L	600	SW846 8260B	RG	6/21/2011
1,4-Dichlorobenzene	**Not detected**	ug/L	750	SW846 8260B	RG	6/21/2011

Brighton Analytical, L.L.C.
2105 Pless Drive
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Sample Date: 6/17/2011
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Report Date: 6/24/2011

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360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03693**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL03-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
1,2-Dichloroethane	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
1,1-Dichloroethene	**Not detected**	ug/L	70	SW846 8260B	RG	6/21/2011
Methyl ethyl ketone	**Not detected**	ug/L	20000	SW846 8260B	RG	6/21/2011
Tetrachloroethene	**Not detected**	ug/L	70	SW846 8260B	RG	6/21/2011
Trichloroethene	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
Vinyl chloride	**Not detected**	ug/L	20	SW846 8260B	RG	6/21/2011
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**101**	%		8260/624	RG	6/21/2011
d4-1,2 Dichloroethane	**93**	%		8260/624	RG	6/21/2011
d8-Toluene	**103**	%		8260/624	RG	6/21/2011

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by: _____

Date: 6/28/11

pH results qualified due to received past hold time.

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
Brighton, Michigan 48116
Phone: (810) 229-7575 FAX: (810) 229-8650
e-mail: bai-brighton@sbcglobal.net

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360 E. Maple Road
Suite R
Troy, MI 48083

BA Report Number: **14861**
BA Sample ID: **BV03694**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL04-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
TCLP Metal Analysis						
TCLP Arsenic	**Not detected**	ug/L	200	SW846 6020	GW	6/22/2011
TCLP Barium	**400**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Cadmium	**Not detected**	ug/L	40	SW846 6020	GW	6/22/2011
TCLP Chromium	**Not detected**	ug/L	10	SW846 6020	GW	6/22/2011
TCLP Copper	**Not detected**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Lead	**Not detected**	ug/L	200	SW846 6020	GW	6/22/2011
TCLP Mercury	**Not detected**	ug/L	2	SW846 7470A	KW	6/23/2011
TCLP Selenium	**Not detected**	ug/L	300	SW846 6020	GW	6/22/2011
TCLP Silver	**Not detected**	ug/L	100	SW846 6020	GW	6/22/2011
TCLP Zinc	**200**	ug/L	70	SW846 6020	GW	6/22/2011
TCLP Mercury (digestion)	**Digested**			7470	KW	6/23/2011
TCLP Metal (digestion)	**Digested**			3015	LS	6/22/2011
Inorganic Analysis						
Ignitability	**Did Not Flash**	deg F	60-200	SW846 1010	GW	6/23/2011
pH (paper strip)	**14.0**	S.I.		SW846 9041A	LS	6/23/2011
TCLP Semi-Volatile						
Cresol	**Not detected**	ug/L	20000 UJ	SW846 8270C	RG	6/22/2011
2,4-Dinitrotoluene	**Not detected**	ug/L	20	SW846 8270C	RG	6/22/2011
Hexachlorobenzene	**Not detected**	ug/L	20	SW846 8270C	RG	6/22/2011
Hexachlorobutadiene	**Not detected**	ug/L	50	SW846 8270C	RG	6/22/2011
Hexachloroethane	**Not detected**	ug/L	300	SW846 8270C	RG	6/22/2011
Nitrobenzene	**Not detected**	ug/L	200	SW846 8270C	RG	6/22/2011
Pentachlorophenol	**Not detected**	ug/L	10000 UJ	SW846 8270C	RG	6/22/2011
Pyridine	**Not detected**	ug/L	500	SW846 8270C	RG	6/22/2011
2,4,5-Trichlorophenol	**Not detected**	ug/L	40000 UJ	SW846 8270C	RG	6/22/2011
2,4,6-Trichlorophenol	**Not detected**	ug/L	200 UJ	SW846 8270C	RG	6/22/2011
TCLP BNA (extraction)	**Extracted**			3510C/3545	MB	6/22/2011

LD
6/28/11

Brighton Analytical L.L.C.™
Brighton Analytical, L.L.C.
2105 Pless Drive
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BA Report Number: **14861**
BA Sample ID: **BV03694**

Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL04-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date
Semi-Volatile Surrogate Recovery						
d14-Terphenyl	**91**	%		8270/625	RG	6/22/2011
d5-Nitrobenzene	**90**	%		8270/625	RG	6/22/2011
d5-Phenol	**2***	%		8270/625	RG	6/22/2011
2-Fluorobiphenyl	**91**	%		8270/625	RG	6/22/2011
2-Fluorophenol	**2***	%		8270/625	RG	6/22/2011
2,4,6-Tribromophenol	**1***	%		8270/625	RG	6/22/2011
TCLP Volatile Analysis						
Benzene	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
Carbon tetrachloride	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
Chlorobenzene	**Not detected**	ug/L	10000	SW846 8260B	RG	6/21/2011
Chloroform	**Not detected**	ug/L	600	SW846 8260B	RG	6/21/2011
1,4-Dichlorobenzene	**Not detected**	ug/L	750	SW846 8260B	RG	6/21/2011
1,2-Dichloroethane	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
1,1-Dichloroethene	**Not detected**	ug/L	70	SW846 8260B	RG	6/21/2011
Methyl ethyl ketone	**Not detected**	ug/L	20000	SW846 8260B	RG	6/21/2011
Tetrachloroethene	**Not detected**	ug/L	70	SW846 8260B	RG	6/21/2011
Trichloroethene	**Not detected**	ug/L	50	SW846 8260B	RG	6/21/2011
Vinyl chloride	**Not detected**	ug/L	20	SW846 8260B	RG	6/21/2011
Volatile Surrogate Recovery						
4-Bromofluorobenzene	**95**	%		8260/624	RG	6/21/2011
d4-1,2 Dichloroethane	**89**	%		8260/624	RG	6/21/2011
d8-Toluene	**106**	%		8260/624	RG	6/21/2011

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Project Name: **Durable Coatings**
Project Number: **20405.016.001.1480.00**
Sample ID: **DC-WL04-061711**

Parameters	Results	Units	DL	Method Reference	Analyst	Analysis Date

DL=Reported detection limit for analytical method requested. Some compounds require special analytical methods to achieve MDNR designated target detection limits (TDL).

Released by: [signature]
Date: 6/28/11

pH results qualified due to received past hold time.
**Out of range due to sample matrix.